

GRAPH:~KGRAPH.TMP

WINKS 4.65

January 10, 2002

Descriptive Statistics

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\LCU.DBF

Variable Name is AREA

N	= 70	Missing or Deleted = 0
Mean	= 8.01071	St. Dev (n-1) = 16.26459
Median	= 1.00	St. Dev (n) = 16.148
Minimum	= 0.25	S.E.M. = 1.94399
Maximum	= 85.00	Variance = 264.53702
Sum	= 560.75	Coef. Var. = 2.03036

Percentiles:

0.0%	= 0.25	Minimum
0.5%	= 0.25	
2.5%	= 0.25	
10.0%	= 0.25	
25.0%	= 0.25	Quartile
50.0%	= 1.00	Median
75.0%	= 7.4375	Quartile
90.0%	= 22.625	
97.5%	= 69.30628	
99.5%	= 85.00	
100.0%	= 85.00	Maximum

Tukey Five Number Summary:

Minimum	= 0.25
Fourth	= 0.25
Median	= 1.00
Fourth	= 6.50
Maximum	= 85.00

Test for normality results:
D = .321 p <= 0.001

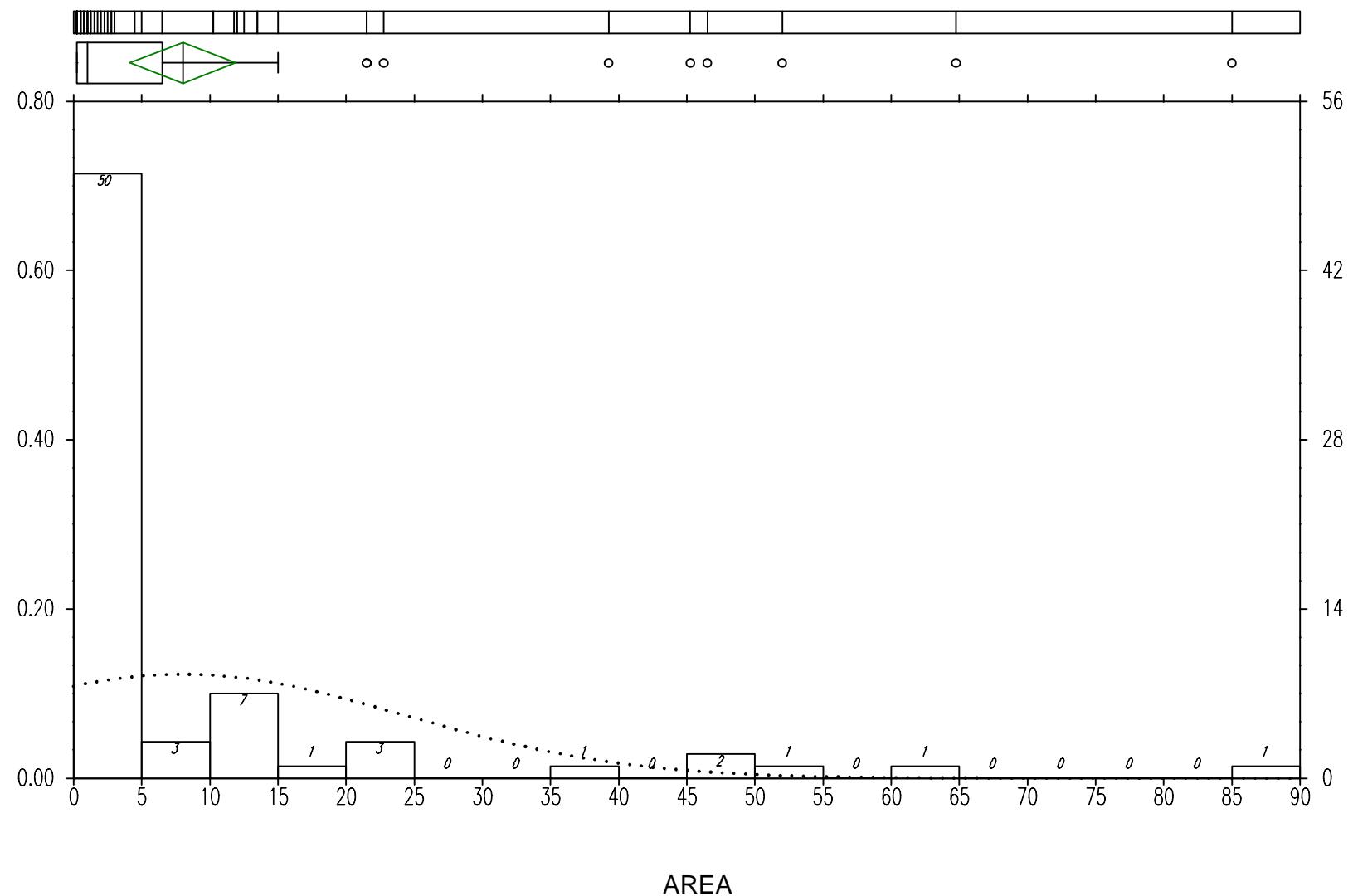
Five number summary was calculated using the technique from UNDERSTANDING ROBUST AND EXPLORATORY DATA ANALYSIS by Hoaglin, Mosteller And Tukey. See complete reference in WINKS manual.

Confidence Intervals about the mean:

80 % C.I. based on a t(69) critical value of 1.3 is (5.48353, 10.5379)
90 % C.I. based on a t(69) critical value of 1.67 is (4.76425, 11.25718)
95 % C.I. based on a t(69) critical value of 2.0 is (4.12273, 11.8987)
98 % C.I. based on a t(69) critical value of 2.39 is (3.36458, 12.65685)
99 % C.I. based on a t(69) critical value of 2.65 is (2.85914, 13.16229)

The normality test suggests that the data are not normally distributed.
The test for normality is a modified Kolmogorov-Smirnov test based on
papers by Lilliefors and Dallal & Wilkinson. References in latenews.txt.

LCU Closures



GRAPH:~KGRAPH.TMP

WINKS 4.65

January 11, 2002

Descriptive Statistics

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Variable Name is HEIGHT

N	= 70	Missing or Deleted = 0
Mean	= 305.75429	St. Dev (n-1) = 561.06294
Median	= 137.85	St. Dev (n) = 557.04093
Minimum	= 2.70	S.E.M. = 67.05985
Maximum	= 3639.70	Variance = 314,792
Sum	= 21402.80003	Coef. Var. = 1.83501

Percentiles:

0.0%	= 2.70	Minimum
0.5%	= 2.70	
2.5%	= 2.7775	
10.0%	= 36.12	
25.0%	= 55.325	Quartile
50.0%	= 137.85	Median
75.0%	= 332.925	Quartile
90.0%	= 631.00	
97.5%	= 3036.751	
99.5%	= 3639.70	
100.0%	= 3639.70	Maximum

Tukey Five Number Summary:

Minimum	= 2.70
Fourth	= 55.50
Median	= 137.85
Fourth	= 331.20
Maximum	= 3639.70

Test for normality results:
D = .295 p <= 0.001

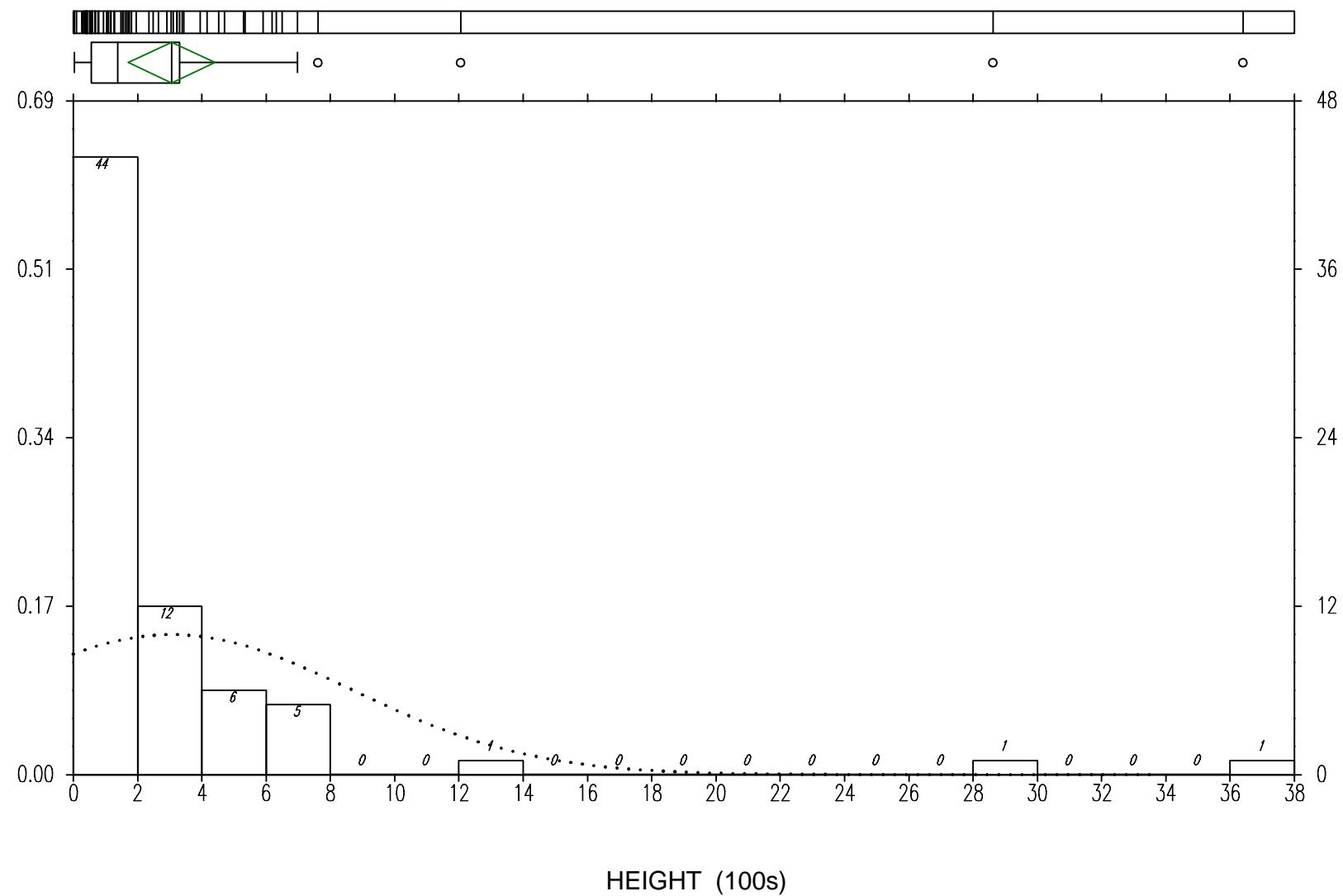
Five number summary was calculated using the technique from UNDERSTANDING ROBUST AND EXPLORATORY DATA ANALYSIS by Hoaglin, Mosteller And Tukey. See complete reference in WINKS manual.

Confidence Intervals about the mean:

80 % C.I. based on a t(69) critical value of 1.3 is (218.57648, 392.93209)
90 % C.I. based on a t(69) critical value of 1.67 is (193.76434, 417.74423)
95 % C.I. based on a t(69) critical value of 2.0 is (171.63459, 439.87398)
98 % C.I. based on a t(69) critical value of 2.39 is (145.48125, 466.02732)
99 % C.I. based on a t(69) critical value of 2.65 is (128.04569, 483.46288)

The normality test suggests that the data are not normally distributed.
The test for normality is a modified Kolmogorov-Smirnov test based on papers by Lilliefors and Dallal & Wilkinson. References in latenews.txt.

LCU Closures – Height



GRAPH:~KGRAPH.TMP

WINKS 4.65

January 10, 2002

Linear Regression and Correlation

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Dependent variable is HEIGHT, 1 independent variables, 70 cases.

Variable	Coefficient	St. Error	t-value	p(2 tail)
Intercept	121.04954	56.087253	2.1582363	0.034
AREA	23.057213	3.1114987	7.4103237	<.001

R-Square = 0.4468 Adjusted R-Square = 0.4386

Analysis of Variance to Test Regression Relation

Source	Sum of Sq	df	Mean Sq	F	p-value
Regression	9703963.5232	1	9703963.5232	54.912897	<.001
Error	1.20E+07	68	176715.56		
Total	21720621.803	69			

A low p-value suggests that the dependent variable HEIGHT may be linearly related to independent variable(s).

MEAN X = 8.011 S.D. X = 16.265 CORR XSS = 18253.06
MEAN Y = 305.754 S.D. Y = 561.063 CORR YSS = 21720620.0
REGRESSION MS= 9703963.523 RESIDUAL MS= 176715.563

Pearson's r (Correlation Coefficient)= 0.6684

The linear regression equation is:

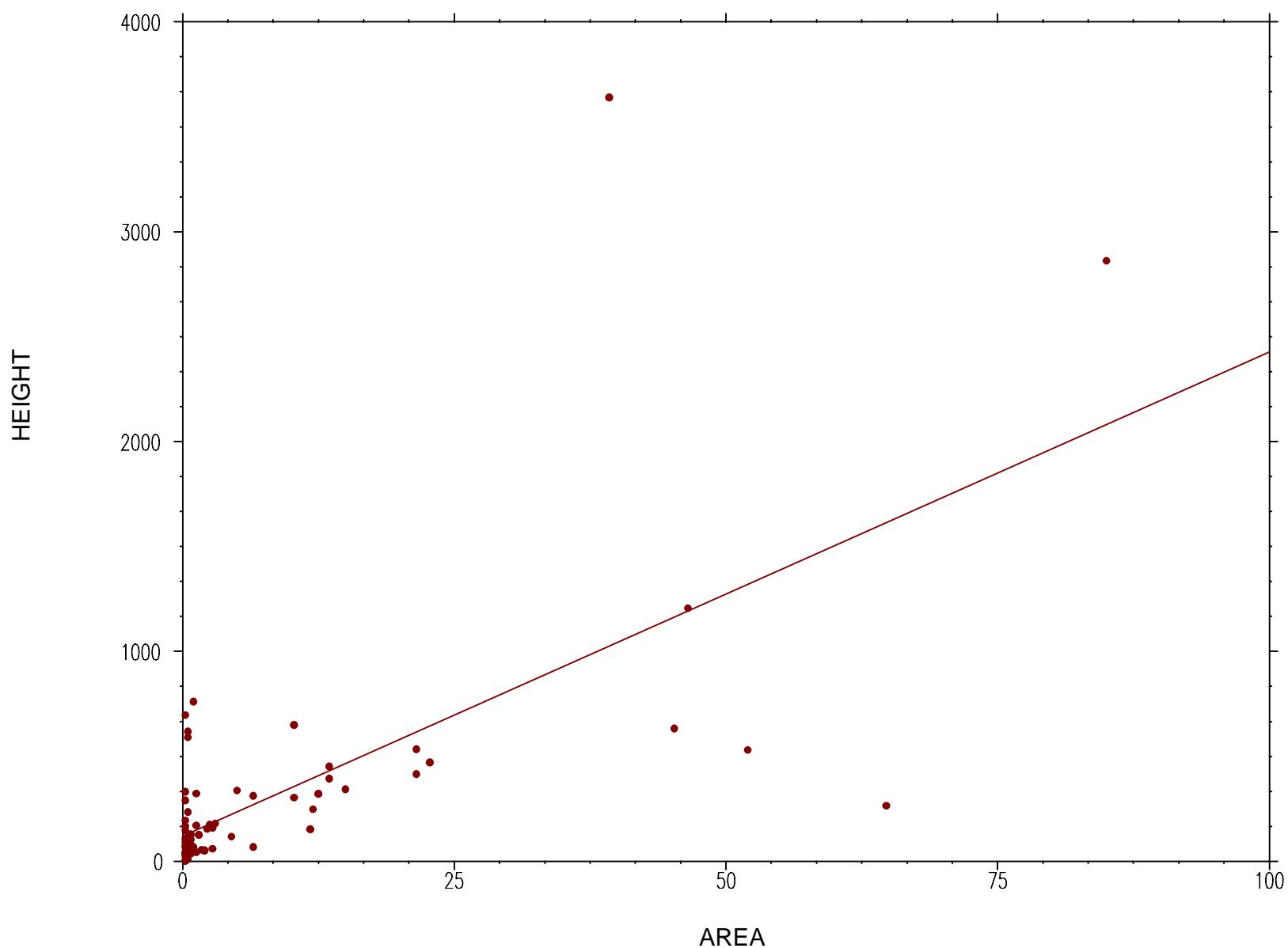
$$\text{HEIGHT} = 121.0495 + 23.05721 * \text{AREA}$$

Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0 (two-tailed test)
t = 7.41 with 68 degrees of freedom p <= .001

Note: A low p-value implies that the slope does not = 0.

LCU Closures



WINKS 4.65

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Correlation Coefficients D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\LCU.DBF

Variables used : AREA and HEIGHT

Number of cases used: 70

Pearson's r (Correlations Coefficient) = 0.6684 R-Square = 0.4468

Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0

(Pearson's) t = 7.410324 with 68 d.f. p < 0.001

(A low p-value implies that the slope does not = 0.)

Spearman's Rank Correlation Coefficient = 0.5838

(Spearman's) t = 5.928722 with 68 d.f. p < 0.001

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Linear Regression and Correlation

D:\PROJECTS\NPRA\TOPSRE~1\WINKST~1\LCU.DBF

Dependent variable is LOGHEIGHT, 1 independent variables, 70 cases.

Variable	Coefficient	St. Error	t-value	p(2 tail)
Intercept	4.6473686	.1349682	34.433076	<.001
LOGAREA	.4806877	.0737517	6.5176493	<.001

R-Square = 0.3845 Adjusted R-Square = 0.3755

Analysis of Variance to Test Regression Relation

Source	Sum of Sq	df	Mean Sq	F	p-value
Regression	50.476837	1	50.476837	42.479753	<.001
Error	80.801434	68	1.1882564		
Total	131.27827	69			

A low p-value suggests that the dependent variable LOGHEIGHT may be linearly related to independent variable(s).

MEAN X = .478 S.D. X = 1.779 CORR XSS = 218.457
MEAN Y = 4.877 S.D. Y = 1.379 CORR YSS = 131.279
REGRESSION MS= 50.477 RESIDUAL MS= 1.188

Pearson's r (Correlation Coefficient) = 0.6201

The linear regression equation is:

$$\text{LOGHEIGHT} = 4.647368 + .4806877 * \text{LOGAREA}$$

Test of hypothesis to determine significance of relationship:

H(null): Slope = 0 or H(null): r = 0 (two-tailed test)
t = 6.52 with 68 degrees of freedom p <= .001

Note: A low p-value implies that the slope does not = 0.

